



Music Technology in Secondary Music Education: Reaching the 80%

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Fact: Today in secondary schools only 20% of the student population is involved in music ensembles.

Abstract

The majority of United States school music programs engage nearly every student in the elementary grades. In the secondary schools, however, they tend to become to overly specialized and exclusive. With band, choir, and orchestra often the only options for music participation this leads to only a small percentage of the student population being involved in music education. Courses in music technology are hands-on and relevant to the current student population. These courses can help increase the percentage of 'non-traditional' music students involved in creating music while fulfilling the national standards for music education. Music technology is also unique because even students with special needs can be involved. This poster presentation will take a look at the music programs of schools in the Dayton area and what they have to offer for non-traditional music students, as well as examining the benefits of such programs.

Who are the 80%?

- Not involved in music ensembles
- Students in 6th to 12th grade
- Cannot read notated music
- May be unmotivated academically
- Consumer of music
- Have special needs

Music Technology in Ohio Schools

Lebanon High School in Lebanon, Ohio is pioneering how music technology can be integrated in the secondary school music curriculum. Director Will Kuhn started the program in 2006 as an experiment while also teaching junior high band. Due to increasing interest in the program another class was added the next year. Music technology is now all he teaches with 3 classes that have attracted over 300 students into their music program. The music technology classes have not hindered the other music ensembles, but have **doubled** the size of the music program.



The Lebanon High School Music Group Performing

Fulfilling the Ohio State Standards of Music

Education

The Ohio State Standards of Music Education focus on three areas: Perceiving/Knowing/Creating (CE), Producing/Performing (PR), Responding/Reflecting. The high school standards are listed in four sections: I (Beginning), II (Developing), III (Intermediate), IV (Mastery).

I	<p>2CE- Identify musical terms and symbols for articulation and expression</p> <p>3CE- Recognize and describe the elements of music.</p> <p>6CE- Identify the social contexts from which music of various cultures evolved.</p> <p>8CE- Explain the role of technology in researching, creating, performing and listening to music</p> <p>7PR- Incorporate technology and media arts in performing or recording music.</p> <p>8PR- Compose and notate a simple melody as well as a melodic variation using traditional or digital media.</p> <p>5RE- Describe the impact of music technology and innovation upon music careers.</p> <p>6RE- Investigate the ethical and legal issues surrounding the access and use of musical works.</p>
II	<p>3CE- Listen to, analyze and describe various music works on the basis of their stylistic qualities and the historical and cultural contexts in which they were created.</p> <p>4CE- Describe the elements of music and their functions.</p> <p>8CE- Describe how music reflects the social and political events of history and the role of the musician in history and culture.</p> <p>5PR- Improvise over simple chord progressions provided by the instructor.</p> <p>6PR- Incorporate technology and media arts in creating, composing and arranging music.</p> <p>7PR- Create and notate a harmonization of a simple melody using traditional or digital media.</p> <p>1RE- Apply assessment to practices to demonstrate the learning and progress made in their development of music skill and music literacy.</p> <p>6RE- Incorporate technology when possible in assessing music performances.</p>
III	<p>2CE- Explain how the roles of creators, performers and others involved in the production and presentation of each of the arts are similar and different.</p> <p>4CE- Identify and trace the development of the elements of music across historical periods</p> <p>5PR- Improvise over chord progressions and symbols provided by the instructor.</p> <p>6PR- Incorporate technology in audio editing and producing various forms of music.</p> <p>7PR- Compose and notate a melody with harmonic accompaniment in a variety of musical styles.</p> <p>5RE- Evaluate how musical forms are influenced by history</p> <p>6RE- Compare and contrast a musical work with another work of art from the same culture on the basis of cultural influences</p> <p>7RE- Evaluate how musical forms and performance practices are influenced by culture and history</p>
IV	<p>6CE- Select personal music experiences that represent well developed skills, skills and accomplishments</p> <p>7CE- Recognize aesthetic characteristics common to all art forms.</p> <p>6PR- Incorporate technology in promoting and distributing music.</p> <p>8PR- Compose an original work or arrange a pre-existing work for a variety of performing ensembles.</p> <p>1RE- Apply assessment practice to select, organize and present personal works to show their growth and development in music</p>

Fulfilling the National Standards of Music

Education

2. Performing on instruments alone and with others a varied repertoire of music
3. Improvising melodies, variations, and accompaniments.
4. Composing and arranging music within specific guidelines
5. Reading and notating music
8. Understanding relationships between music, the other arts, and disciplines outside the arts.
9. Understanding music in relation to history and culture.

Special Education



iPad



The Soundbeam



Adaptive Use Musical Instruments



Special Education cont.

Students who have special needs are now more able to fully participate in making music through using music technology. With using technology such as the Soundbeam or iPad students even with the most limited mobility have the ability to create music.

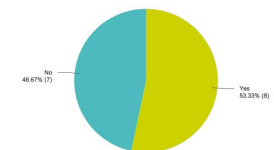
iPad- Through the use of applications such as Thumb Jam, students are able to create their own music simply by dragging their finger across the screen.

Soundbeam- This innovative technology can be used either up close or at a distance and is triggered by body movement. The Soundbeam uses ultrasonic beams that when tripped create a sound. By using MIDI's the student is capable of playing any instrument that they want.

Adaptive Use Musical Instruments- This resource can be found online and is free to use. This application functions much like the Soundbeam but only requires a computer and a webcam to use.

Survey Results

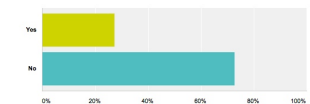
Does your school music program offer alternative courses or ensemble options for students not involved in band, choir, or orchestra?



If you answered 'Yes' to the question above, please list the course and/or ensemble options available to these students.

Guitar
Music Theory
Music History
Music Technology
Jazz Improv Piano

Do any of the above listings involve music technology?



Conclusion